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EXAMINER

WONG, ERIC TAK WAI

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/787,529	Applicant(s) SHIELDS ET AL.	
	Examiner ERIC T. WONG	Art Unit 3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-30, and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 recites the limitation "second settlement amount". Claim 1, from which claim 6 depends, recites both a second initial settlement amount and a second revised settlement amount. It is unclear as to which settlement amount the term in claim 6 refers to.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-8 and 10-23 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. For purposes of § 101, a "process" has been given a specialized, limited meaning by the courts. Based on Supreme Court precedent and recent Federal Circuit decisions, a process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101 since it is directed to non-statutory subject matter. In addition to being tied to another statutory class, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. See *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

6. There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific

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machine or a particular transformation of a specific article in an insignificant step, such a data gathering or outputting, is not sufficient to pass the test.

7. A method claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. Here claims 1-8 and 10-23 fail to meet the above requirements since there is neither a physical transformation nor a sufficient tie to another statutory class.

8. On the first Bilski prong, the claim does not recite a sufficient tie to another statutory class. Independent claims 1 and 12 do recite a "processor" but a processor may be broadly interpreted as a human being.

9. On the second Bilski prong, the claim does not require transformation of any article into a different state or thing. The only transformation is that of legal rights and organizational relationships that were explicitly excluded in the Bilski decision: "transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances."

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Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-6, 10, and 11 rejected under 35 U.S.C. 102(b) as anticipated by GAO

(PAYMENTS, CLEARANCE, AND SETTLEMENT: A Guide to the Systems, Risks, and Issues).

12. Regarding claim 1, GAO discloses:

receiving by the spot market clearing house data sent from a first spot market operator indicative of a first initial settlement amount for a first trade between a trading participant and the first spot market operator in a predetermined period and data sent from a second spot market operator indicative of a second initial settlement amount for a second trade between the trading participant and the second spot market operator, the spot market clearing house being separate from the first and second spot market operators, and the first and second spot market operators corresponding to separate spot markets.

13. Examiner notes that GAO discloses futures clearing houses which may be departments within an exchange, or clearing corporations, which are separately incorporated and independent from the exchange (see pg. 66).

14. Examiner additionally notes that a spot market may be defined in two different ways:

(1) A commodities or securities market in which goods are sold for cash and delivered immediately. Contracts bought and sold on these markets are immediately effective.

(2) A futures transaction for which commodities can be reasonably expected to be delivered in one month or less. Though these goods may be bought and sold at spot prices, the goods in question are traded on a forward physical market.

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15. Using definition (2), the reference reads on the claim limitation "spot market". In the reference, the "spot market operator" is the exchange. Trades may be placed in multiple spot markets, eg. the spot market in crude oil, and the spot market in natural gas. The first and second spot market operators may be interpreted as the same exchange, in which case the reference discloses the claim limitations. However in the case that Applicant believes the claim must be interpreted as requiring multiple distinct operators, then the Examiner notes it is old and well known in the art for futures clearing houses to clear trades on multiple exchanges (see Frase, pg. 99, 5.08 and footnote 5).

16. GAO further discloses:

sending an initial clearing statement from the spot market clearing house to a clearing member associated with the trading participant based on the data indicative of the first and second initial settlement amounts, the clearing member being separate from the first and second spot market operators (see pg. 71, first variation settlement);

recording by the spot market clearing house a funds transfer in accordance with the initial clearing statement (see pg. 71, first variation settlement);

after recording a funds transfer, receiving by the spot market clearing house data sent from the first spot market operator indicative of a first revised settlement amount for the first trade and data sent from the second spot market operator indicative of a second revised settlement amount for the second trade, the data indicative of the first and second revised settlement amounts being different from the data indicative of the first and second initial settlement amounts (see pg. 71, second variation settlement, the data received is the market price);

generating a revised clearing statement based on the data indicative of the first and second revised settlement amounts;

sending the revised clearing statement from the spot market clearing house to the clearing member;

recording by the spot market clearing house a funds transfer in accordance with the revised clearing statement (see pg. 71, second variation settlement); and

determining by the spot market clearing house, a performance bond corresponding to the trading participant based on the first and second trades (see pg. 71).

17. Examiner notes one of ordinary skill in the art at the time of invention would have appreciated that the variation settlements are conveyed to the clearing members by method of generating a statement. If not disclosed implicitly by the reference, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified GAO to include generating a revised clearing statement based on the data indicative of the first and second revised settlement amounts; and sending the revised clearing statement from the spot market clearing house to the clearing member. The modification would have merely been the application of a known technique, ie. generating a clearing statement, to a known method, ie. conveyance of variation settlement prices, yielding predictable results.

18. Regarding claim 2, it would have been within the realm of knowledge of one of ordinary skill in the art at the time of invention that futures contracts may include electricity as the underlying commodity.

19. Regarding claim 3, GAO discloses wherein the trades comprise real-time trades (see pp. 69-70).

20. Regarding claim 4, GAO discloses wherein the trades comprise day-ahead trades. Examiner notes that the trades may be made a day before delivery date.

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21. Regarding claim 5, GAO discloses wherein the predetermined period comprises one trading day (see pp. 69-70).

22. Regarding claim 6, GAO discloses wherein the data indicative of the first initial settlement amount comprises aggregated data indicating a net settlement amount for the trading participant in a first spot market associated with the first spot market operator, and wherein the data indicative of the second initial settlement amount comprises data indicating a net settlement amount for the trading participant in a second spot market associated with the second spot market operator (see pg. 71).

23. Regarding claim 10, GAO discloses wherein receiving by the spot market clearing house data sent from the first spot market operator further comprises receiving data indicative of at least one revised settlement amount for at least one trade in a period prior to the predetermined period; and wherein the initial clearing statement is based on the data indicative of the first initial settlement amount and the revised clearing statement is based on the data indicative of the at least one revised settlement amount. Examiner notes that a position may be held from a previous trading day.

24. Regarding claim 11, GAO discloses wherein the data indicative of the first initial settlement amount and the data indicative of the at least one revised settlement amount comprises a net settlement amount, the net settlement amount comprising a single number that the trading participant owes to or is owed from the first spot market operator.

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Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 24-26 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over GAO.

27. Claims 24-26 and 28 recite method steps recited by claims 1, 2, 7, and 22 which are disclosed by GAO as discussed above. GAO does not explicitly disclose a computer-readable medium comprising instructions which, when executed by a processor, accomplish said method steps.

28. However, it was old and well known in the art at the time of invention to incorporate a business method as such. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified GAO to include a computer-readable medium comprising instructions which, when executed by a processor, accomplish said method steps.

29. The modification would have merely been the application of a known technique to a known method ready for improvement yielding predictable results.

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30. Claims 12-14, 16-23, 29-30, and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over GAO in view of Frase (“Exchanges and Alternative Trading Systems”).

31. Regarding claim 12, GAO discloses

receiving by the spot market clearing house data indicative of settlement amounts for the trades of a participant in the predetermined period from a spot market operator, the spot market operator being separate from the spot market clearing house;

aggregating by the spot market clearing house, the data indicative of settlement amounts for the trades from the plurality of spot market operators to indicate a net settlement amount for the participant;

determining by the spot market clearing house, a performance bond for the participant based on the trades of the participant;

recording by the spot market clearing house a funds transfer in accordance with the clearing statement based on aggregated settlement amounts and the performance bond.

32. GAO discloses receiving data indicative of settlement amounts but does not explicitly disclose receiving the data from **multiple spot operators**, netting the settling amounts **across the plurality of spot markets**, and calculating a performance bond for the participant across **the plurality of spot markets** (emphasis added).

33. Frase teaches futures clearing houses clearing trades on multiple exchanges. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the clearing corporation of GAO to receiving the data from multiple spot operators.

34. Additionally, Frase implicitly teaches netting the settling amounts **across the plurality of spot markets**, and calculating a performance bond for the participant across **the plurality of spot markets**. One of ordinary skill in the art at the time of invention would have appreciated that settlement amounts and performance bonds are netted for trades cleared by the same clearing house.

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35. Alternatively, if not implicitly taught by Frase, Cross-Margins teaches netting settlement amounts and performance bonds across a plurality of markets. Therefore, it would have been obvious to modify GAO further to include netting settlement amounts and performance bonds across a plurality of markets. The modification would have merely been the application of a known technique to a known method yielding predictable results.

36. Regarding claim 13, it would have been within the realm of knowledge of one of ordinary skill in the art at the time of invention that futures contracts may include electricity as the underlying commodity.

37. Regarding claim 14, GAO discloses wherein the trades comprise real-time trades (see pp. 69-70).

38. Regarding claim 16, GAO discloses wherein the predetermined period comprises one trading day (see pp. 69-70).

39. Regarding claim 17, the combination as set forth in claim 12 above discloses wherein the settlement amounts received from the plurality of spot market operators comprise aggregated settlement amounts indicating net settlement amounts for the participant in the plurality of spot market operators.

40. Regarding claim 18, GAO discloses determining by the spot market clearing house a performance bond by analyzing aggregated settlement amounts.

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41. Regarding claim 19, GAO discloses

wherein the spot market operator sends data indicative of initial settlement amounts for the trades in the predetermined period and sends revised settlement amounts for the trades in a period later than the predetermined period;

wherein receiving the settlement amounts comprises receiving the data indicative of the initial settlement amounts.

wherein aggregating the settlement amounts comprises aggregating the data indicative of the initial settlement amounts.

wherein sending a clearing statement is based on the data indicative of the initial settlement amounts; and further comprising:

receiving by the spot market clearing house data indicative of at least one revised settlement amount for at least one of the trades; and

sending a revised clearing statement from the spot market clearing house to the clearing member based on the data indicative of the revised settlement amount.

42. Examiner notes that a position may be held from a previous trading day.

43. Regarding claim 20, GAO discloses:

wherein the spot market operator sends data indicative of the initial settlement amounts for the trades and sends data indicative of revised settlement amounts for the trades after recording the funds transfer;

wherein receiving the settlement amounts comprises receiving, from the plurality of spot market operators, data indicative of initial settlement amounts for the trades of the participant in the predetermined period and data indicative of at least one revised settlement amount for a trade in a period prior to the predetermined period; and

wherein aggregating the settlement amounts comprises aggregating the data indicative of the initial settlement amounts and the revised settlement amount;

wherein sending a clearing statement is based on the initial settlement amounts.

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44. Regarding claim 21, GAO discloses wherein determining a performance bond comprises determining a performance bond for a current day of trading.

45. Regarding claim 23, the combination as set forth in claim 12 above teaches wherein determining position exposures of trades comprises determining position exposures of trades for a participant with multiple spot market operators.

46. Claims 29-30 and 32 recite method steps recited by claims 12, 13, and 19. The claims are rejected based upon similar reasons as given above.

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47. Claims 7 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over GAO in view of CAL PX ("Power Exchange Settlement and Billing Protocol", cited in prior Office action).

48. Regarding claim 7, GAO does not explicitly disclose wherein the data indicative of the first initial settlement amount is based on an estimate of an amount of commodity transferred corresponding to the executed trade; and wherein the data indicative of the first revised settlement amount is based on a measured amount of the commodity transferred.

49. CAL PX teaches wherein data indicative of a first initial settlement amount is based on an estimate of an amount of a commodity transferred corresponding to the executed trade; and wherein data indicative of a first revised settlement amount is based on a measured amount of the commodity transferred (see section 4.3.1 on "imbalance energy", and section 1.2.7 (a) on payment methodology).

50. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified GAO further with wherein the data indicative of the first initial settlement amount is based on an estimate of an amount of commodity transferred corresponding to the executed trade; and wherein the data indicative of the first revised settlement amount is based on a measured amount of the commodity transferred.

51. The modification would have merely been the application of a known technique to a known method ready for improvement yielding predictable results.

52. Regarding claim 8, GAO does not explicitly disclose wherein the data indicative of first and second revised settlement amounts are based on power line measurements.

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53. CAL PX teaches wherein data indicative of first and second revised settlement amounts are based on power line measurements.

54. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified GAO further with wherein data indicative of first and second revised settlement amounts are based on power line measurements.

55. The modification would have merely been the application of a known technique to a known method ready for improvement yielding predictable results.

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56. Claim 22 rejected under 35 U.S.C. 103(a) as being unpatentable over GAO in view of Frase, further in view of Shimko (US PATENT NO. 7,139,730 B1, cited in prior Office action).

57. Regarding claim 22, GAO does not explicitly disclose wherein determining a performance bond for a current day of trading comprises: determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures.

58. Shimko teaches collateralizing for a short time period and statistically analyzing the determined positive exposures.

59. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the clearing house of GAO with determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures.

60. The modification would have merely been the application of a known technique to a known method yielding predictable results.

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61. Claim 27 rejected under 35 U.S.C. 103(a) as being unpatentable over GAO in view of Shimko.

62. Regarding claim 27, GAO does not explicitly disclose wherein determining a performance bond for a current day of trading comprises: determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures.

63. Shimko teaches collateralizing for a short time period and statistically analyzing the determined positive exposures.

64. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the clearing house of GAO with determining a number of days to collateralize; determining positive exposures of trades for a participant with at least one spot market operator for most recent days trading equal to the number of days to collateralize; and statistically analyzing the determined positive exposures.

65. The modification would have merely been the application of a known technique to a known method yielding predictable results.

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Response to Arguments

66. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

67. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. "Cross-Margins for Equity Index and Interest Rate Futures and Options", July 1999.

68. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. WONG whose telephone number is 571-270-3405. The examiner can normally be reached on Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James A. Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

ERIC T. WONG
Examiner
Art Unit 3693

January 27, 2010